Solution of the radial equation for hydrogen atom: Series solution or Laplace transform?

From the text: “Different approaches to the solution of the radial equation for the hydrogen atom are examined. We point out several important issues: the conventional series solution method, the recent Laplace transform approach adopted by Shertzer. We trace back the original treatment of Schrödinger and review his rigorous Laplace transform approach. Finally, the suggestion of how to present this subject at different levels is discussed.”

Reviewer: J. Ohriska (Košice)

MSC:
34A25 Analytical theory of ordinary differential equations: series, transformations, transforms, operational calculus, etc.
81-00 General reference works (handbooks, dictionaries, bibliographies, etc.) pertaining to quantum theory

Keywords:
radial equation for the hydrogen atom; conventional series solution method; Laplace transform approach

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References:

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